

KIBO Dancer

Repeat Loops with Number Parameters

KIBO 10+

WHAT'S THIS?

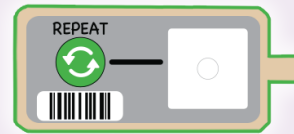
KIBO can repeat a pattern of blocks over and over with a repeat loop. Let's create a repeating dance routine.



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GET READY!

KIBO will repeat the sequence of blocks placed between REPEAT and END REPEAT. Blocks placed outside the REPEAT and END REPEAT will not repeat.



The gray parameter cards “2”, “3”, “4”, and “FOREVER” control how many times the pattern repeats.



What's a *loop*?

A **loop** tells a robot or computer to repeat the same pattern of instructions over and over again. With KIBO, the REPEAT and END REPEAT blocks make **loops**.

A program with a repeat loop still needs the BEGIN and END blocks too.

Build:



Attach KIBO's wheels and motors.

Make:

Create a dancer and attach to KIBO. What costume will your dancer wear?



1 2
3 4

Code:

Invent a dance step for KIBO.



Make the dance longer by repeating the dance step.



All blocks between REPEAT and END REPEAT will be repeated 4 times!

Play:

Play your favorite song! Does KIBO dance to the music? Change the dance step to match the music.

Try changing the parameter cards to change how many times KIBO repeats. Will KIBO dance forever?



NOTE: KIBO will shut off automatically after 15 minutes. Or you can press KIBO's triangle button to stop the program.